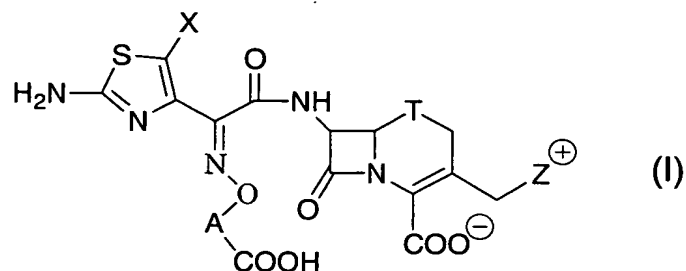


Abstract

A compound of the formula:



5 (wherein,

T is S, SO or O ;

X is halogen, CN, carbamoyl optionally substituted with lower alkyl, lower alkyl, lower alkoxy, or lower alkylthio ;

10 A is substituted lower alkylene (wherein the substituent is optionally substituted mono lower alkyl, optionally substituted lower alkylidene, or optionally substituted lower alkylene) ;

Z⁺ is an optionally substituted, a cation and an N atom-containing heterocyclic group), ester, amino-protected compound wherein the amino bonds to a thiazole ring at the 7-position, or pharmaceutically acceptable salt or solvate thereof.

15